

ABO, A4GNT, XXYLT1, EXT1/2, EXTL1/3, CHPF2, CHSY1/3, and CSGALNACT1/T2 (Group 3).

47. The plurality of isogenic mammalian cells of claim **1**, wherein one or more of said cells has an inactivation and/or introduction of one or more glycogene selected from the list consisting of glycogenes associated with genes involved in N and O-glycan and glycolipid capping (sialylation), such as ST3GAL1/2/3/4/5/6 (α 2,3NeuAc capping/sialylation) and/or ST6GAL1/2 (α 2,6NeuAc capping/sialylation) and/or ST8SIA1/2/3/4/5/6 (capping by poly-sialylation) and/or ST6GALNAC1/2/3/4/5/6 (α 2,6NeuAc capping/sialylation) (Group 4).

48. The plurality of isogenic mammalian cells of claim **1**, wherein one or more of said cells has an inactivation and/or introduction of one or more glycogene selected from the list consisting of FUT1/2/3/4/5/6/7/8/9/10/11, ST3GAL1/2/3/4/5/6, ST6GAL1/2, ST6GALNAC1/2/3/4/5/6, and ST8SIA1/2/3/4/5/6 (Group 4).

49. The plurality of isogenic mammalian cells of claim **1**, wherein one or more of said cells has an inactivation and/or introduction of one or more glycogene selected from the list consisting of DSE, DSEL, CHST11/T12/T13/T14/T15, UST, NDST1/T2/T3/T4, GLCE, HS2ST1, HS3ST1/T2/T3A1/T3B1/T4/T5/T6, HS6ST1/T2/T3, SULF1/2, HPSE, CHST1/T2/T3/T4/T5/T6/T7/T8/T9/T10, GAL3ST1/T2/T3/T4, CHST8/T9/T10, CASD1, FAM20B, POMK, GNPTAB (Group 5).

50. The plurality of isogenic mammalian cells of claim **1**, wherein one or more of said cells are HEK293 cells that has an introduction of one or more glycogene selected from the list of A3GALT2, A4GNT, ABO, ALG1L2, B3GALNT1, B3GALT2, B3GNT6, B4GALNT2, FUT5, FUT7, FUT9, GALNT15, GALNT5, GALNT9, GALNTL5, GALNTL6, GALNT19/WBSCR17, GCNT3, GCNT4, GCNT7, GLT1D1, GLT6D1, HAS1, MGAT4C, MGAT4D, ST6GAL2, ST6GALNAC1, ST8SIA1, ST8SIA3, ST8SIA4, CHST2, GAL3ST3, HS3ST1, HS3ST4, HS3ST5, NDST3 (Table 6).

51.-52. (canceled)

53. A glycome display library comprising the plurality of isogenic mammalian cells of claim **1**.

54. (canceled)

55. Use of the glycome display library of claim **53** for the display of a plurality of different glycans on the surface of or after being released from said mammalian cells.

56. Use of the glycome display library of claim **53** for probing interactions of a glycan-binding entity, such as a glycan-binding-protein (GBP) with glycans presented by said mammalian cells.

57.-64. (canceled)

65. A mammalian cell capable of expressing a gene encoding a polypeptide of interest, wherein the polypeptide of interest is expressed comprising one or more of the posttranslational modification patterns:

- i) homogenous mono-antennary or biantennary N-glycans, and
- a) with α 2,3NeuAc capping,
- b) without α 2,3NeuAc capping,
- c) with α 2,6NeuAc capping,
- d) without α 2,6NeuAc capping,
- e) without LacDiNAc structure, or
- f) with M6P.

66. (canceled)

67. A method for identifying glycoprotein glycovariants with improved drug properties comprising:

- a) producing a plurality of different glycoforms of said glycoprotein by expressing the glycoprotein in a plurality of different isogenic mammalian cells, each of said isogenic mammalian cells comprising different glycosylation capacities due to their having one or more endogenous glycogene that has been inactivated and/or one or more exogenous glycogene that has been introduced;
- b) determining the activity of the different glyco-forms in comparison with a reference glycoprotein in suitable bioassay; and
- c) selecting the glycoform with the higher/highest/optimal activity.

68. The method of claim **67**, wherein said one or more endogenous glycogene inactivated and/or exogenous glycogene introduced in said isogenic mammalian cells is selected from the list of GNPTAB, GNPTG, NAGPA, ALG3/6/8/9/10/12s, Mannosidases (MAN1A1, MAN1A2, MAN1B1, MAN1C1, MAN2A1, MAN2A2), MOGS, GANAB plus MGAT1/2 and Sialyl transferases.

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